Finasteride in hospitalized adult males with Covid-19: A risk factor for severity of the disease or an adjunct treatment: A randomized controlled clinical trial

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Abstract

Background: There is controversy about the efficacy of 5-alpha-reductase inhibitors in COVID-19 patients. Some assumed that finasteride might be a risk factor for deterioration and others proposed it as a possible adjunct treatment for moderate to severe COVID-19 infection in the elderly. Methods: We performed a randomized controlled clinical trial (registration ID IRCT20200505047318N1) on 80 hospitalized male patients aged ≥50 years diagnosed with COVID-19 pneumonia in a tertiary hospital in Qazvin (Iran) from April to July 2020. The patients were randomized into one of the 2 treatment groups using simple randomization. Treatment group patients underwent routine drug therapy and 5 mg finasteride once daily for 7 days. The primary endpoint was mortality rate and length of hospital stay (LOS), and secondary endpoints were peripheral capillary oxygen saturation, respiratory rate, and inflammatory markers changes. The study protocol was approved by the medical ethics committee of Qazvin University of Medical Sciences (registration ID IR.QUMS.REC.1399.080). Data were analyzed by statistical tests and SPSS version 25. Also, $p<0.05$ was considered to be statistically significant. Results: We found a significant difference on O2 saturation among the 2 study groups on fifth day compared with the admission time ($p= 0.018$). The results did not show significant differences in mortality rate (2.5% vs 10%; $p= 0.166$) and LOS ($p= 0.866$) between patients in the finasteride and the control group. Conclusion: A short course of finasteride administration partially improves O2 saturation but does not influence other outcomes in hospitalized male patients aged ≥50 years with COVID-19 pneumonia. Further research in a large scale with longer follow-up is required to help clarify the role of finasteride in this setting.

Author keywords

Adult; Covid-19 Infection; Finasteride; Male; Therapy